

## IN THE CLAIMS

1        36. (New) A host messaging unit for allowing asynchronous retrieval of a  
2        command from a host processor, the host messaging unit comprising:  
3                a read controller, coupled to a bus, for determining when a host command has been  
4        provided to a host memory and for asynchronously retrieving the host command directly from  
5        a host memory via direct memory access;  
6                a validator, coupled to the read controller, for validating the retrieved host command;  
7        and  
8                a write controller, coupled to the bus, for asynchronously signaling a successful  
9        command transfer from the host memory to the host messaging unit via direct memory  
10      access.

1        37. (New) The host messaging unit of claim 36, wherein the read controller  
2        comprises a read clock for initiating the command retrieval from the host memory at  
3        predetermined intervals.

1        38. (New) The host messaging unit of claim 37, wherein the read clock allows  
2        programmable predetermined intervals.

1        39. (New) The host messaging unit of claim 38, wherein the read clock restarts  
2        the predetermined interval after the command retrieval from the host memory.

1        40. (New) The host messaging unit of claim 37, wherein the write controller  
2        clears the host memory to inform the host that the host command has been read.

1        41. (New) The host messaging unit of claim 36, wherein the read controller  
2        comprises a busmaster command engine for initiating the command retrieval from the host  
3        memory when the busmaster command engine receives a signaled indicating host commands  
4        are available in the host memory.

1        42. The host messaging unit of claim 41, wherein the busmaster command engine  
2        comprises a register programmable for indicating that the command is available to be  
3        retrieved from the host memory.

1        43. (New) A peripheral component interconnect device comprising:  
2            a device processor; and  
3            a host messaging unit coupled to the device processor for facilitating communication  
4        between the device processor and an external device, the host messaging unit including:  
5            a read controller, coupled to a bus, for determining when a host command has  
6        been provided to a host memory and for asynchronously retrieving the host command directly  
7        from a host memory via direct memory access;  
8            a validator, coupled to the read controller, for validating the retrieved host  
9        command; and  
10           a write controller, coupled to the bus, for signaling a successful command  
11        transfer from the host memory to the host messaging unit.

1        44. (New) The host messaging unit of claim 43, wherein the read controller  
2        comprises a read clock for initiating the command retrieval from the host memory at  
3        predetermined intervals.

1        45. (New) The host messaging unit of claim 44, wherein the read clock allows  
2        programmable predetermined intervals.

1        46. (New) The host messaging unit of claim 45, wherein the read clock restarts  
2        the predetermined interval after the command retrieval from the host memory.

1        47. (New) The host messaging unit of claim 44, wherein the write controller  
2        clears the host memory to inform the host that the host command has been read.

1        48. (New) The host messaging unit of claim 43, wherein the read controller  
2        comprises a busmaster command engine for initiating the command retrieval from the host  
3        memory when the busmaster command engine receives a signaled indicating host commands  
4        are available in the host memory.

1        49. The host messaging unit of claim 48, wherein the busmaster command engine  
2        comprises a register programmable for indicating that the command is available to be  
3        retrieved from the host memory.

1        50. (New) A method of asynchronously servicing a peripheral component  
2    interconnect device comprising:  
3            determining when a host command has been provided to a host memory;  
4            asynchronously retrieving the host command directly from the host memory via direct  
5    memory access;  
6            validating the retrieved host command; and  
7            signaling a successful command transfer from the host memory to the host messaging  
8    unit.

1        51. (New) The host messaging unit of claim 50, wherein the asynchronously  
2    retrieving the host command directly from the host memory via direct memory access further  
3    comprises providing a clock for initiating the retrieval of the host command from the host  
4    memory at predetermined intervals.

1        52. (New) The host messaging unit of claim 51, wherein the signaling a  
2    successful command transfer from the host memory to the host messaging unit further  
3    comprises clearing the host memory to inform the host that the host command has been read.

1        53. (New) The host messaging unit of claim 50, wherein the asynchronously  
2    retrieving the host command directly from the host memory via direct memory access further  
3    comprises initiating the command retrieval from the host memory upon receipt of a signal  
4    indicating host commands are available in the host memory.

1           54. (New) An article of manufacture comprising”  
2           a program storage medium readable by a computer, the medium tangibly embodying  
3           one or more programs of instructions executable by the computer to perform operations for  
4           reducing bus transfer overhead between a host processor and a peripheral component  
5           interconnect device processor, the operations comprising:  
6           determining when a host command has been provided to a host memory;  
7           asynchronously retrieving the host command directly from the host memory via direct  
8           memory access;  
9           validating the retrieved host command; and  
10           signaling a successful command transfer from the host memory to the host messaging  
11           unit.

1        55. (New) A peripheral component interconnect device comprising:

2            a device processing means; and

3            a host messaging means coupled to the device processing means for facilitating

4            communication between the device processing means and an external device, the host

5            messaging means including:

6                read control means, coupled to a bus, for determining when a host command

7                has been provided to a host memory and for asynchronously retrieving the host command

8                directly from a host memory via direct memory access;

9                validating means, coupled to the read control means, for validating the

10          retrieved host command; and

11                write control means, coupled to the bus, for signaling a successful command

12          transfer from the host memory to the host messaging unit.